Peabody, Daniel (EGLE)

From: Saric, James <saric.james@epa.gov>
Sent: Thursday, August 22, 2019 10:50 AM
To: Johnson, Shannon D.; Draper, Cynthia E; Kempf, Carrie
Cc: Keiser, Jeff/MKE; Peabody, Daniel (EGLE); Wood, Nicole; robertsk@cdmsmith.com; Roth, Charles; Canar, John
Subject: Disapproval of Kalamazoo River Area 5 Phase 2 FSP: (OK to proceed with field work)
Attachments: Area 5 Phase 2 FSP Disapproval.pdf

Shannon,

Attached is EPA's disapproval of the Kalamazoo River Area 5 Phase 2 Field Sampling Plan. EPA's comments need to be addressed and are enclosed. However, based on our recent teleconferences EPA is comfortable with GP moving forward with data collection scheduled to begin Monday 8/26.

Let me know if you have any questions.

Thanks

Jim Saric
Remedial Project Manager
US EPA Region 5, Chicago
(312) 886 - 0992

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

SR-6J

August 22, 2019

Mr. Shannon Johnson
Georgia-Pacific LLC
133 Peachtree Street NE
Atlanta, GA 30303

RE: Area 5 of Operable Unit 5
Allied Paper, Inc./Portage Creek/Kalamazoo River Site
Phase 2 Field Sampling Plan Disapproval

Dear Mr. Johnson:

The U.S. Environmental Protection Agency (EPA) has completed its review of the draft Area 5 Phase 2 Field Sampling Plan, submitted on June 28, 2019, for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site. The plan provides a summary of the Area 5 Phase 1 data evaluation and planned Phase 2 supplemental remedial investigation field sampling activities.

Although EPA concurs with the proposed sampling locations, and rationale for determining the nature and extent of contamination, the proposed data collection effort for monitored natural recovery (MNR) is difficult to evaluate because the document is not clear on data objectives and the overall purpose of the MNR sampling.

On August 19, 2019, EPA participated in a telephone conference with representatives of Georgia-Pacific (GP), Wood, and the Michigan Department of Environment, Great Lakes and Energy. During that call GP presented a data quality objective matrix for MNR, and clarified questions presented by the Agencies. This significantly increased EPA's understanding of the purpose and objectives of the MNR sampling.

EPA does have significant comments on the document that need to be addressed, specifically regarding the plan's objectives and goals for MNR. Therefore, EPA disapproves the Area 5 Phase 2 SRI sampling plan pending receipt of adequate responses to the enclosed comments and a revised report. The responses to the enclosed comments and revised report must be submitted within (30) thirty days of receipt of this letter.

EPA is comfortable with GP moving forward with the Area 5 Phase 2 data collection beginning August 26, 2019.

Please contact me at (312) 886-0992 if you have any questions regarding this matter.

Sincerely,

James A. Saric
Remedial Project Manager
SEMD Remedial Response Branch #1

Enclosure

cc: Dan Peabody, EGLE
Richard Gay, Weyerhaeuser

US EPA COMMENTS ON THE AREA 5 PHASE 2 FIELD SAMPLING PLAN

GENERAL COMMENTS

Commenting Organization: USEPA **Commenter: Keiser/White**
General Comment #: 1

The proposed data collection effort for Monitored Natural Recovery (MNR) is difficult to evaluate because the information being presented is not clear on objectives or purpose, and what the MNR data collection effort is trying to establish.

Provide a brief summary of the conceptual site model (CSM) to set the stage (e.g., PCB profiles in sediment cores collected in depositional areas show that PCB concentrations are declining over time; fish tissue data collected in the LTMP indicate that fish tissue concentrations are declining; burial by relatively cleaner sediments in certain parts of Area 5 may be sufficient to reduce surface sediment PCB concentrations to acceptable levels in a reasonable amount of time) and then the proposed data collection effort can focus on those areas where MNR may be an effective approach based on the CSM.

Assuming the study objectives are to 1) better define areas where MNR may be suitable (e.g., stable areas unlikely to be disturbed in the future; surface sediment PCB concentrations declining and approaching the cleanup goal); 2) attempt to quantify the rates of natural recovery processes (e.g., net sediment accumulation rates, declines in PCB concentration in various media); and 3) better understand processes that may affect natural recovery rates (i.e., the OPTICs work). It would be helpful if Section 5 more clearly and specifically explained what the MNR data collection effort is trying to establish. The DQO Matrix, discussed during the August 19, 2019 Area 5 teleconference was helpful in clarifying the MNR sampling rationale and should be included in the revised document.

Commenting Organization: EGLE **Commenter:**
General Comment #: 2

Language in the document should be adjusted to clearly state what is being measured (i.e. Aroclors, congeners, etc.) for each matrix (i.e. soil, sediment, etc.).

Commenting Organization: EGLE **Commenter:**
General Comment #: 3

EGLE notes that, in general, the Department of Natural Resources owns less property in Area 5 than in other upstream Areas. Additionally, properties were platted prior to the installation of the dam. Therefore, it will be important to accurately show property boundaries, ownership, and zoning in the RI Report and future documents for Area 5.

Commenting Organization: EGLE **Commenter:**
General Comment #: 4

The document does not consider a dam-out scenario. It is EGLE's understanding that future options for the Allegan City Dam (i.e. full removal, partial removal, and repair) are currently being explored by the City. Full or partial removal of the dam could alter current water flows and erosion/deposition patterns. This field investigation document and its associated data evaluation should include implications of a "dam-out" scenario.

Commenting Organization: EGLE **Commenter:**
General Comment #: 5

Weighting lines of evidence for monitored natural recovery (MNR), including primary and secondary, should not occur until after data collection and evaluation.

Commenting Organization: EGLE/EPA **Commenter:**
General Comment #: 6

Please clarify if any of the information collected under this program will be utilized for modeling purposes beyond the DELFT 3D model. If so, please clarify what modeling packages will be used, what areas will be evaluated, and what processes will be evaluated (e.g., contaminant fate and transport, bioaccumulation, etc.).

Commenting Organization: EGLE **Commenter:**
General Comment #: 7

Section 6.0 refers to MDEQ throughout the entirety of the section. Please change all references to "MDEQ" in this Section and the remainder of the document to "EGLE".

SPECIFIC COMMENTS

Commenting Organization: EGLE **Commenter:**
Section: 1.1 **Page #: 1-1** **Lines #:**
Specific Comment #: 1

The document makes the following statements as a condition of Area 5:

- "The downstream dam (Allegan City Dam) has not been lowered, and, therefore, lacustrine sediment containing polychlorinated biphenyls (PCBs) is not present on the floodplains."

• "Flooding is the only mechanism to transport PCBs onto floodplains, rather than deposition of lacustrine sediment in formerly impounded areas."

EGLE notes that PCBs have been detected in Area 5 floodplain soils and in surficial and deeper floodplain soils in free-flowing sections of river upstream Areas indicating that flood events can result in the deposition of PCB-contaminated materials on to the floodplains. This statement also does not consider historic channel migration and/or historic bedforms, which may have resulted in the transport and deposition of PCBs onto what is now floodplains. Please provide additional information to clarify and/or support these statements, re-word them so that they are more accurate, or remove them.

Commenting Organization: EGLE **Commenter:**
Section: 2.2.3 **Page #: 2-6** **Lines #:**
Specific Comment #: 2

Please provide justification and rationale for using 25-feet as the definition of a "bank". EGLE notes that "bank soils" have not be defined or agreed upon by the Work Group and clean-up values for "bank" strata have not been established in upstream Areas during the Remedial Process. Cleanup values for banks were used during TCRAs that were completed in upstream Areas due to emergency conditions (i.e. ongoing and uncontrolled erosion and downstream transport of contaminated bank materials) and those removal actions included dam removal which requires sediment remediation and bank remediation and stabilization.

Commenting Organization: EGLE/EPA **Commenter:**
Section: 3.1.3 **Page #: 3-2** **Lines #:**
Specific Comment #: 3

The document states on Page #3-3 that "Phase I and Recon II PCB concentrations are shown on Figures 3-4a-e through 3-11a-e by interval for Intervals 1 through 8." Note, the figures do not include all Intervals. Please review and include all intervals.

Commenting Organization: EGLE **Commenter:**
Section: 4.2 **Page #: 4-1** **Lines #:**
Specific Comment #: 4

The document states "...three proposed Phase II core locations were placed using professional judgment near SED-362 and SED-394 for a total of six locations (Figure 4-2a-b)." Please explain what parameters were used during the "professional judgement" process to select the core locations.

Commenting Organization: EGLE Commenter:
Section: 4.3 Page #: 4-2 Lines #:
Specific Comment #: 5

The text states, "Soil cores will be collected from the middle of the bank at each proposed sampling location as estimated by the field crew." Please provide information on how this will be estimated and how the estimation procedure will be standardized between different field personnel.

Commenting Organization: EGLE Commenter:
Section: 4.5 Page #: 4-4 Lines #:
Specific Comment #: 6

This section should clearly state that the "residential PRG" for total PCBs is 2.5 mg/kg.

Commenting Organization: EGLE Commenter:
Section: 4.6.2 Page #: 4-4 Lines #:
Specific Comment #: 7

Provide rationale for limiting Total toxic equivalency quotient (TEQ) analysis to the top two intervals and not archiving deeper intervals for potential future Total TEQ analyses. EGLE notes that residential criteria apply to soils greater than 12-in. below grade.

Commenting Organization: EGLE Commenter:
Section: 5.1.1 Page #: 5-1 and 5-2 Lines #:
Specific Comment #: 8

Bottom of Page #5-1 and top of Page #5-2 – the document states, "PCBs may also be present in sediment and soil at concentrations that are not acceptable for ecological receptors." This should be changed to "PCBs may also be present in sediment and soil at concentrations that are not acceptable for **human and** ecological receptors". Bold text indicates the requested change.

Commenting Organization: EGLE/EPA Commenter:
Section: 5.1.2 Page #: 5-4 Lines #:
Specific Comment #: 9

The last bullet in the Decision Statements section implies the active remediation will only be pursued in erosional or less stable areas, which is premature, as the determination of what areas to target for remediation is still in progress. Delete the phrase "in more erosional or less stable subareas."

Commenting Organization: EGLE/EPA **Commenter:**
Section: 5.2 **Page #: 5-7** **Lines #:**
Specific Comment #: 10

The document states, "Triplicate cores will be scored for selection of the best cores." Please provide additional information describing how the cores are scored to determine the "best core" and references SOP F-12 and F-13 in the 2019 Quality Assurance Project Plan (QAPP). The information contained in QAPP SOP F-13 Geochronology Core Logging and Sample Processing Procedures, specifically Step #8, describes the process for "scoring" cores. There should be a group discussion on these practices, including how they are completed without sectioning or opening the core and discussion on Step #8 Parts B&C which deal with how fine materials (e.g. silts and clays) are handled in the "scoring" process.

Commenting Organization: EGLE **Commenter:**
Section: 5.5 **Page #: 5-10** **Lines #:**
Specific Comment #: 11

Include Multi-Area QAPP references for the standard operating procedures (SOPs) for the OPTically based In-situ Characterization System (OPTICS), Hydrodynamic and Sediment Transport (HyST) system, Laser In-Situ Scattering and Transmissometry (LISST) sensor, acoustic doppler current profiler (ADCP).

Commenting Organization: EGLE **Commenter:**
Section: 5.5 **Page #: 5-10** **Lines #:**
Specific Comment #: 12

This is the very first mention of wind-driven resuspension in this document. Wind-driven resuspension is not presented as a transport process of concern in the study goals presented in Section 5.1.2. Furthermore, it is also not clear how any temporal events apparent in the data can definitively be tied to wind-driven resuspension. If wind-driven resuspension is a concern, it should be added to the study goals in Section 5.1.2 and the text should be expanded to present how this process will be evaluated from the data.

Commenting Organization: EGLE **Commenter:**
Section: 5.5 **Page #: 5-10** **Lines #:**
Specific Comment #: 13

Clarify the text to discuss how the data can be used to characterize carp bioturbation.

Commenting Organization: EGLE Commenter:
Section: 5.5 Page #: 5-10 Lines #:
Specific Comment #: 14

Consider also measuring particulate organic carbon. The estimates of particulate PCB concentrations in surface water will be more meaningful when paired with particulate organic carbon measurements. Particulate organic carbon will also prove useful if this data will be used to calculate partition coefficients.